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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/994,607      | 11/28/2001  | Naoharu Yanagawa     | Q67434              | 9283             |

7590 09/09/2004

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EXAMINER

TRAN, THANG V

ART UNIT PAPER NUMBER

2653

DATE MAILED: 09/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/994,607

**Applicant(s)**

YANAGAWA ET AL.

**Examiner**

Thang V. Tran

**Art Unit**

2653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 10 and 12 is/are rejected.
- 7) ☒ Claim(s) 2-9 and 11 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1 and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Sato et al. (US 6,418,104).

Sato et al, according to Figs. 5 and 13, shows a tilt detector comprising all limitations as recited in the instant claimed invention which include: an optical apparatus comprising an optical system (7) for leading a laser beam (B) to a recording surface of an optical recording medium (1) and a laser beam reflected by the recording surface to a split type photo detector (see Fig. 5); a read signal generator (110) for generating a read signal; a push-pull component generator (9) for generating a push-pull component signal; a tilt error signal generator (12) for generating a tilt error signal based the push-pull signal; a tile angle adjuster (5) and a diver (13) for driving the tilt adjuster to reduce tilt error based on the tilt error signal, as recited in claim 1 and corresponding functional method claim 12.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sato et al (US 6,418,104) in view of Ogasawara (US 6,141,304).

Sato et al, according to Figs. 5 and 13, shows all the features of the instant claimed invention (see the rejection above) except for the use of a tilt angle adjuster includes a liquid crystal panel having a plurality of regions arranged in a optical system, and a driver drives each of said plurality of regions of the liquid crystal panel in accordance with a tilt error signal. Ogasawara, according to Figs. 1-14, teach the use a tilt angle adjuster (see a liquid crystal device 3 in Fig. 1) includes a liquid crystal panel having a plurality of regions arranged in a optical system (see Figs. 4-6 example), and a driver see controlling circuit 10 in Fig. 1) drives each of the plurality of regions of the liquid crystal panel in accordance with a tilt error signal. It would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the tilt adjuster and the tilt driver in the apparatus of Sato et al with the tilt adjuster and tilt driver as taught by Ogasawara in order to make the apparatus of Sato et al more compact in size.

***Allowable Subject Matter***

5. Claims 2-9 and 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 2-9 and 11 are allowable over the prior art of record because the prior art of record, considered in combination or individually, fails to suggest or fairly teach a tile servo

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control device including a combination of all features as particular recited in each of claims 2 and 3. Claims 4-9 and 11 are allowable with their respective parent claim.

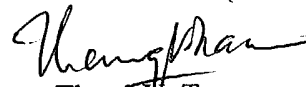
*Cited References*

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited references relate to an optical apparatus having a tilt control device for detecting and correcting a tilt error representing a tilt angle between the recording medium and an optical axis of a laser beam focuses on the recording medium.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thang V. Tran whose telephone number is (703) 308-1551. The examiner can normally be reached on M-F 9:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on 703 305-6137. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Thang V. Tran  
Primary Examiner  
Art Unit 2653

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